

Subpart B—General Design Requirements

§ 179.10 Tank mounting.

(a) The manner in which tanks are attached to the car structure shall be approved. The use of rivets to secure anchors to tanks prohibited.

(b) [Reserved]

§ 179.11 Welding certification.

(a) Welding procedures, welders and fabricators shall be approved.

(b) [Reserved]

§ 179.12 Interior heater systems.

(a) Interior heater systems shall be of approved design and materials. If a tank is divided into compartments, a separate system shall be provided for each compartment.

(b) Each interior heater system shall be hydrostatically tested at not less than 13.79 bar (200 psig) and shall hold the pressure for 10 minutes without leakage or evidence of distress.

[Amdt. 179-52, 61 FR 28678, June 5, 1996, as amended by 66 FR 45390, Aug. 28, 2001]

§ 179.13 Tank car capacity and gross weight limitation.

Except as provided in this section, tank cars, built after November 30, 1970, or any existing tank cars that are converted, may not exceed 34,500 gallons (130,597 L) capacity or 263,000 pounds (119,295 kg) gross weight on rail.

(a) For other than tank cars containing poisonous-by-inhalation material, a tank car may be loaded to a gross weight on rail of up to 286,000 pounds (129,727 kg) upon approval by the Associate Administrator for Safety, Federal Railroad Administration (FRA). Tank cars must conform to the conditions of the approval and must be operated only under controlled interchange conditions agreed to by participating railroads.

(b) Tank cars containing poisonous-by-inhalation material meeting the applicable authorized tank car specifications listed in § 173.244(a)(2) or (3), or § 173.314(c) or (d) may have a gross weight on rail of up to 286,000 pounds upon approval by the Associate Administrator for Railroad Safety, FRA. Tank cars exceeding 263,000 pounds and

up to 286,000 pounds gross weight on rail must meet the requirements of AAR Standard S-286, Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars (IBR, see § 171.7 of this subchapter). Any increase in weight above 263,000 pounds may not be used to increase the quantity of the contents of the tank car.

[74 FR 1802, Jan. 13, 2009, as amended at 75 FR 27216, May 14, 2010; 77 FR 37985, June 25, 2012]

§ 179.14 Coupler vertical restraint system.

(a) *Performance standard.* Each tank car shall be equipped with couplers capable of sustaining, without disengagement or material failure, vertical loads of at least 200,000 pounds (90,718.5 kg) applied in upward and downward directions in combination with buff loads of 2,000 pounds (907.2 kg), when coupled to cars which may or may not be equipped with couplers having this vertical restraint capability.

(b) *Test verification.* Except as provided in paragraph (d) of this section, compliance with the requirements of paragraph (a) of this section shall be achieved by verification testing of the coupler vertical restraint system in accordance with paragraph (c) of this section.

(c) *Coupler vertical restraint tests.* A coupler vertical restraint system shall be tested under the following conditions:

(1) The test coupler shall be tested with a mating coupler (or simulated coupler) having only frictional vertical force resistance at the mating interface; or a mating coupler (or simulated coupler) having the capabilities described in paragraph (a) of this section;

(2) The testing apparatus shall simulate the vertical coupler performance at the mating interface and may not interfere with coupler failure or otherwise inhibit failure due to force applications and reactions; and

(3) The test shall be conducted as follows:

(i) A minimum of 200,000 pounds (90,718.5 kg) vertical downward load shall be applied continuously for at least 5 minutes to the test coupler head simultaneously with the application of